

**FIG.1**

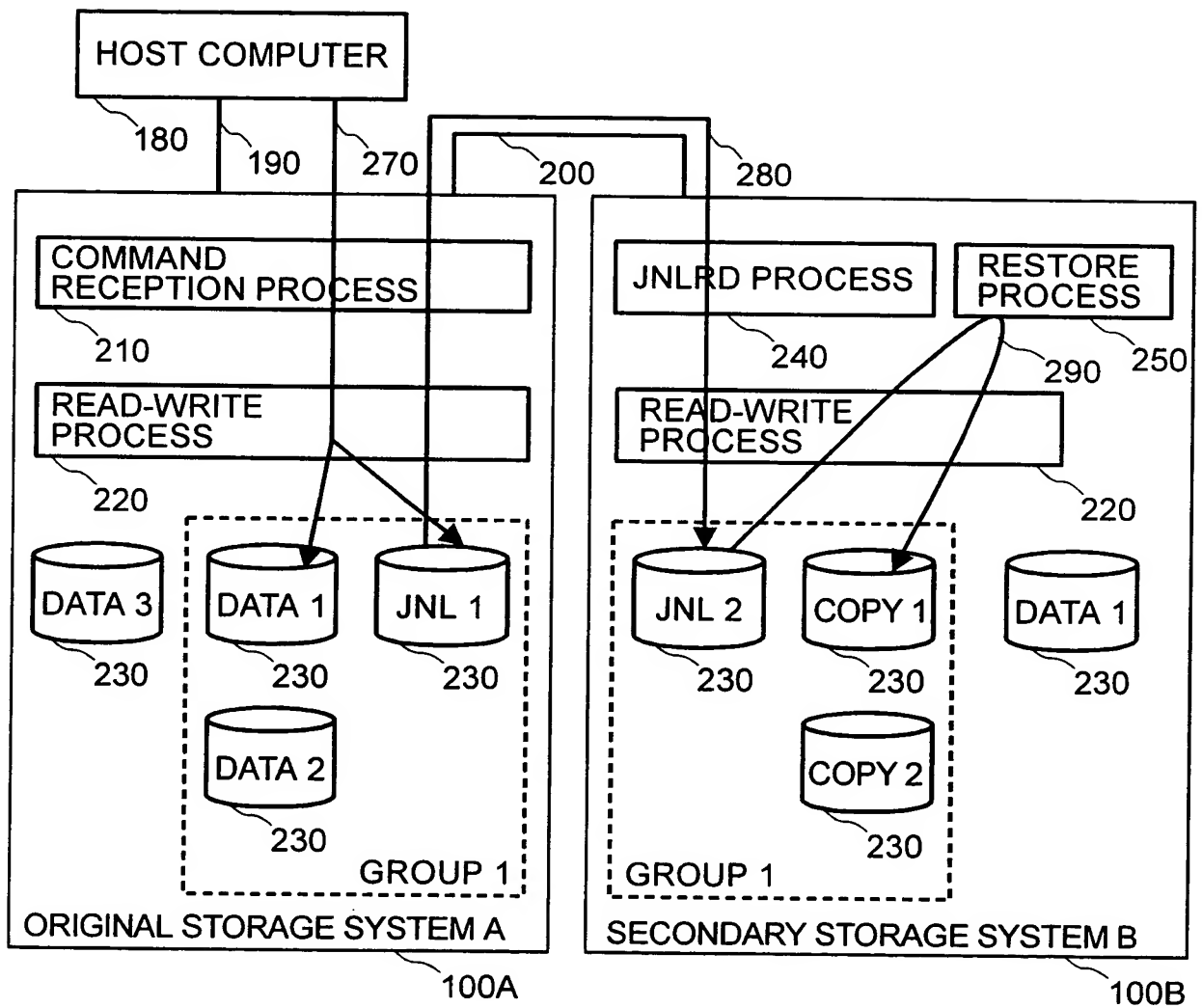
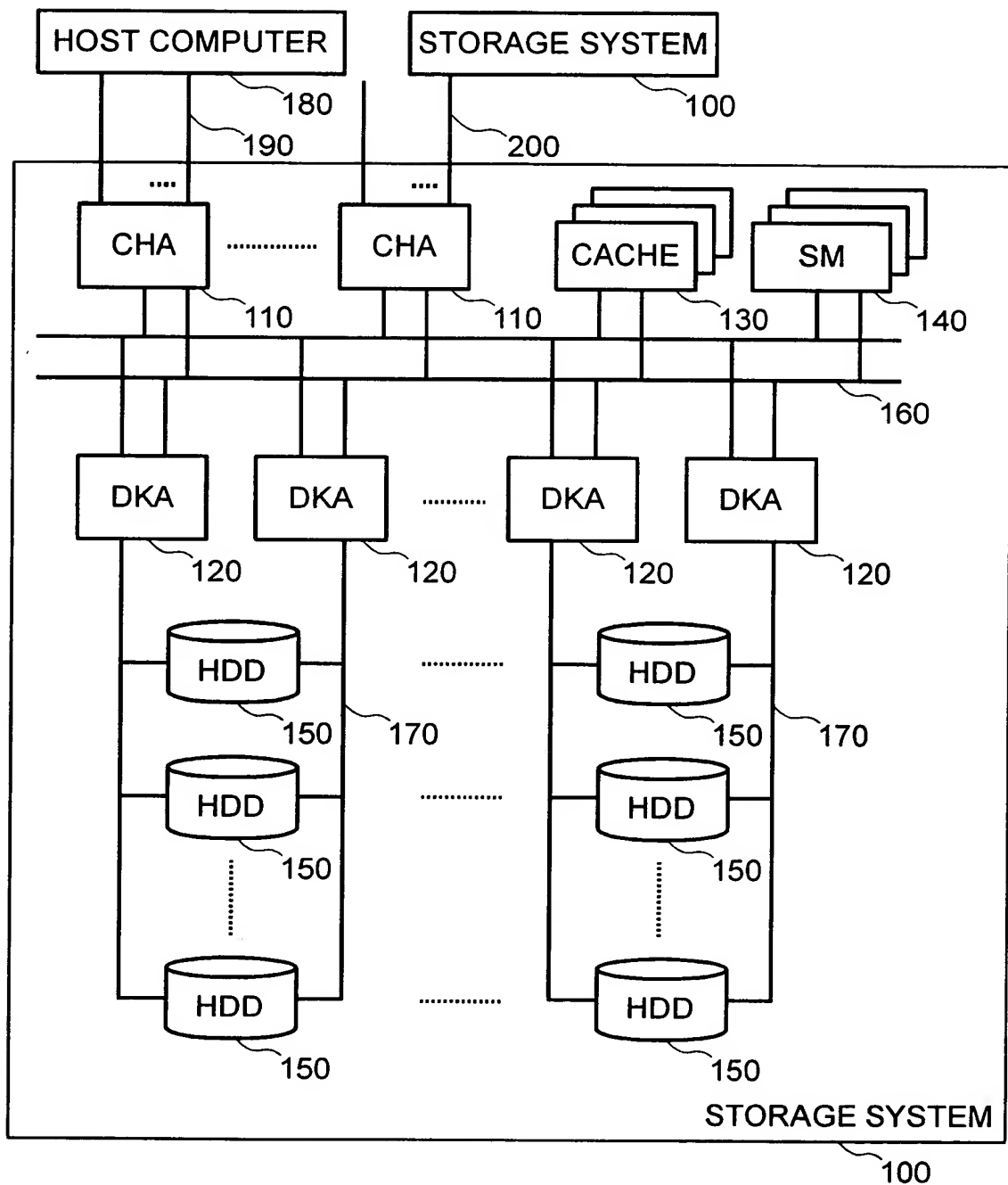


FIG.2



**FIG.3**

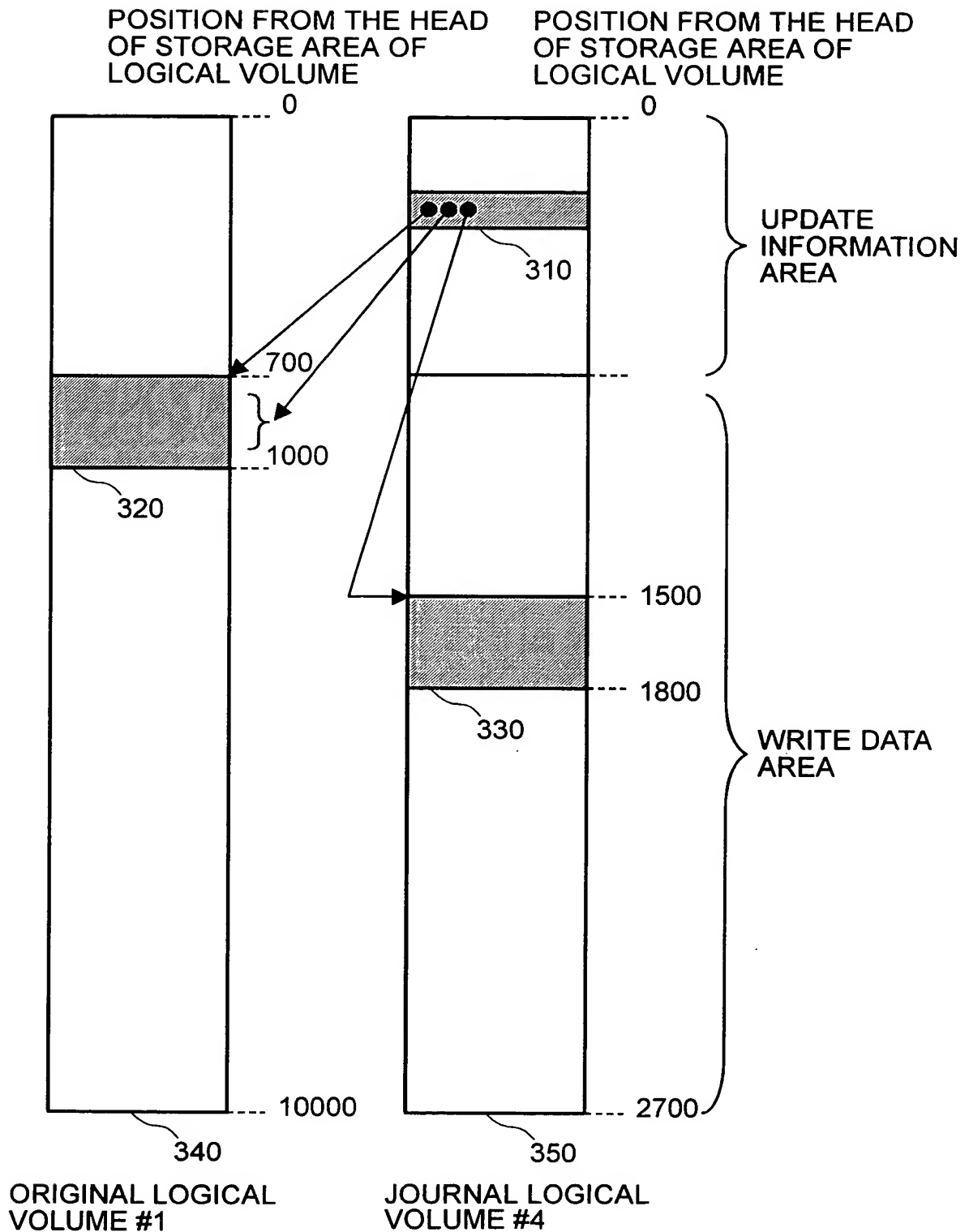


FIG.4

LOGICAL VOLUME NUMBER	VOLUME STATE	FORMAT	CAPACITY	PAIR NUMBER	PHYSICAL ADDRESS	
					STORAGE DEVICE NUMBER	POSITION FROM THE HEAD
1	ORIGINAL	OPEN3	3	1	1	0
2	ORIGINAL	OPEN6	6	2	1	3
3	BLANK	OPEN6	6	0	1	9
4	NORMAL	OPEN9	9	0	2	0
5	NORMAL	OPEN3	3	0	2	9
6	BLANK	OPEN6	6	0	2	12

400 VOLUME INFORMATION

FIG.5

PAIR NUMBER	PAIR STATE	ORIGINAL STORAGE SYSTEM NUMBER	ORIGINAL LOGICAL VOLUME NUMBER	SECOND STORAGE SYSTEM NUMBER	SECOND LOGICAL VOLUME NUMBER	GROUP NUMBER	COPY COMPLETE ADDRESS
1	NORMAL	1	1	2	1	1	0
2	NORMAL	1	2	2	3	1	0
3	BLANK	0	0	0	0	0	0
4	BLANK	0	0	0	0	0	0
5	BLANK	0	0	0	0	0	0

500 PAIR INFORMATION

FIG.6

GROUP NUMBER	GROUP STATE	PAIR SET	JOURNAL LOGICAL VOLUME NUMBER	UPDATE NUMBER
1	NORMAL	1,2	4	1
2	BLANK	0	0	0

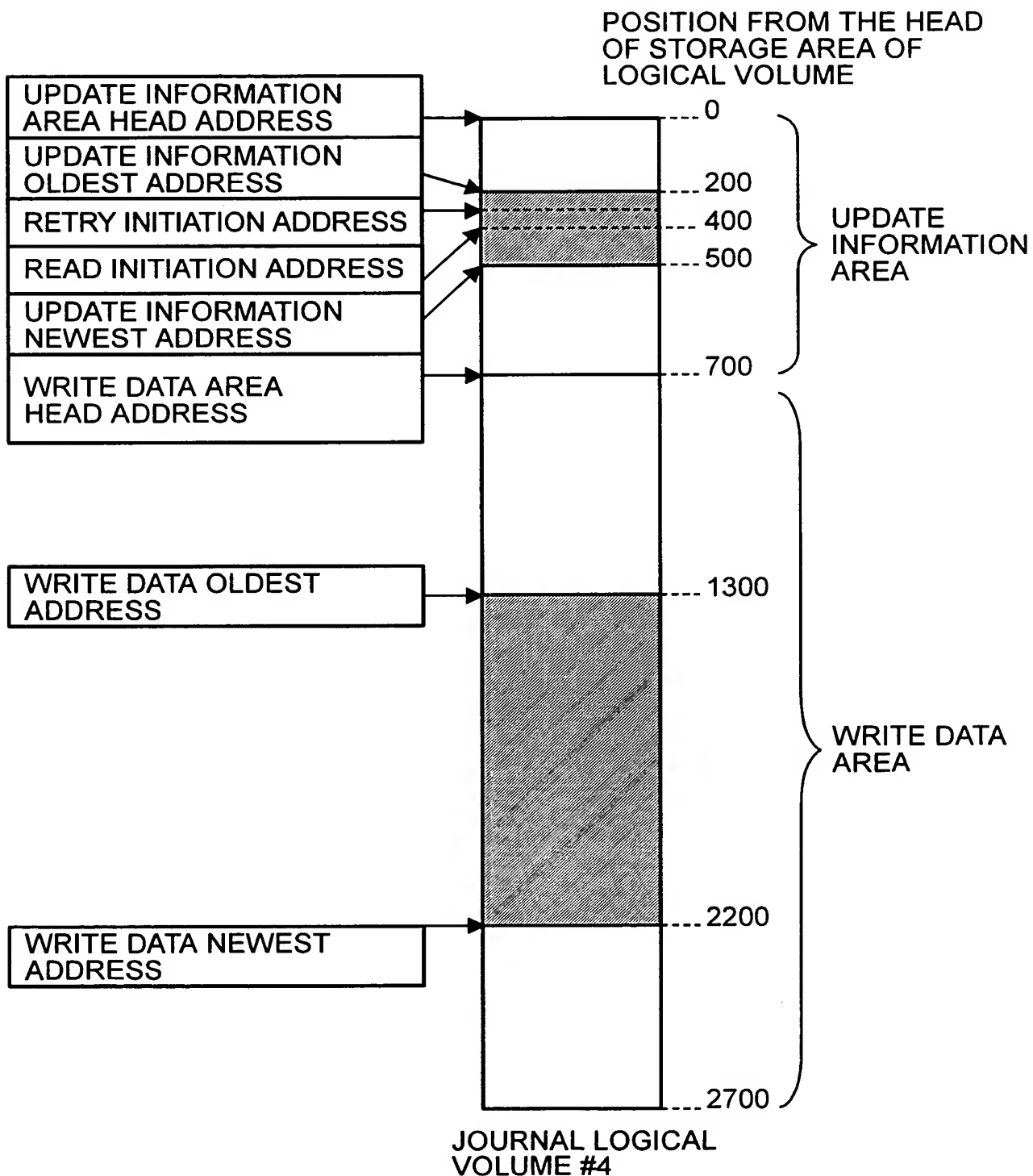
600 GROUP INFORMATION

FIG.7

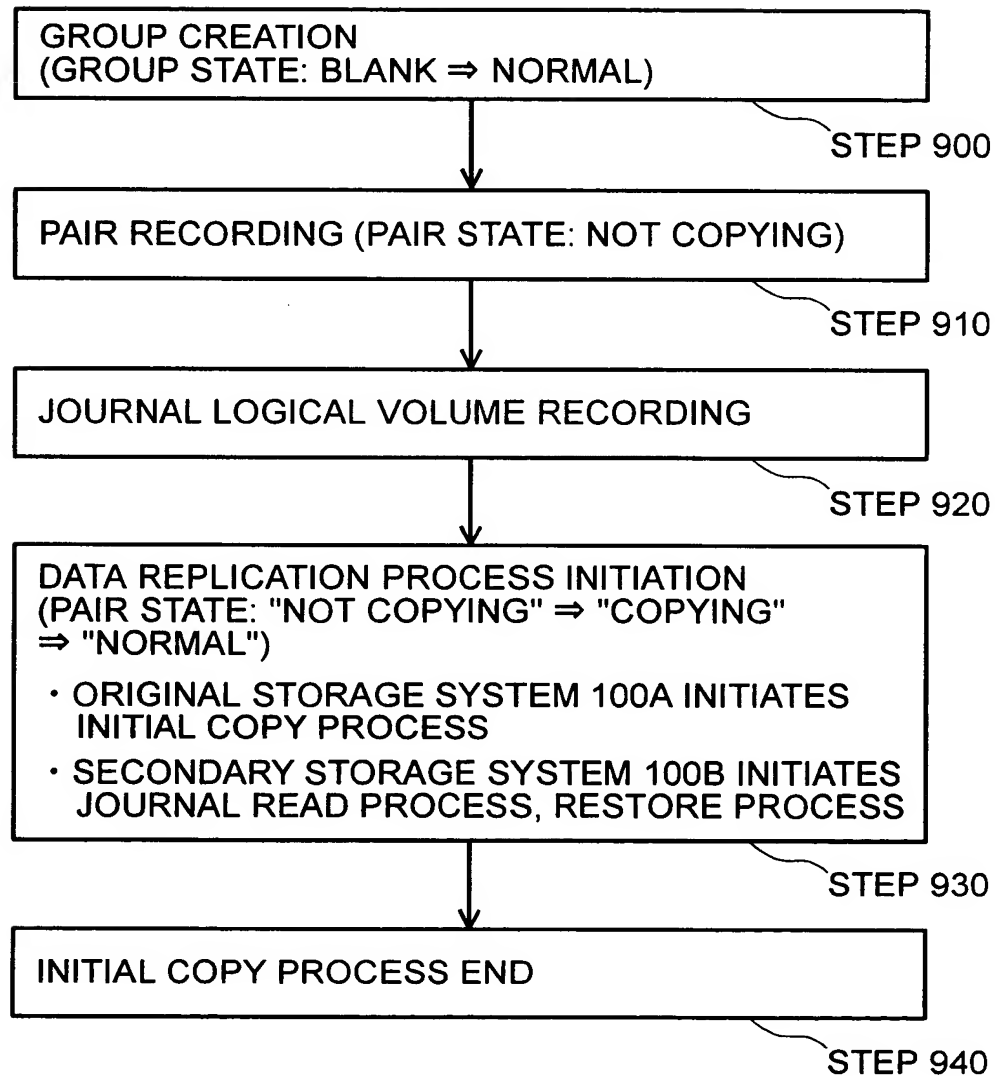
	LOGICAL ADDRESS	
	LOGICAL VOLUME NUMBER	POSITION FROM THE HEAD OF STORAGE AREA OF LOGICAL VOLUME
UPDATE INFORMATION AREA HEAD ADDRESS	4	0
WRITE DATA AREA HEAD ADDRESS	4	700
UPDATE INFORMATION NEWEST ADDRESS	4	500
UPDATE INFORMATION OLDEST ADDRESS	4	200
WRITE DATA NEWEST ADDRESS	4	2200
WRITE DATA OLDEST ADDRESS	4	1300
READ INITIATION ADDRESS	4	400
RETRY INITIATION ADDRESS	4	300

700 POINTER INFORMATION

**FIG.8**



**FIG.9**



**FIG.10**

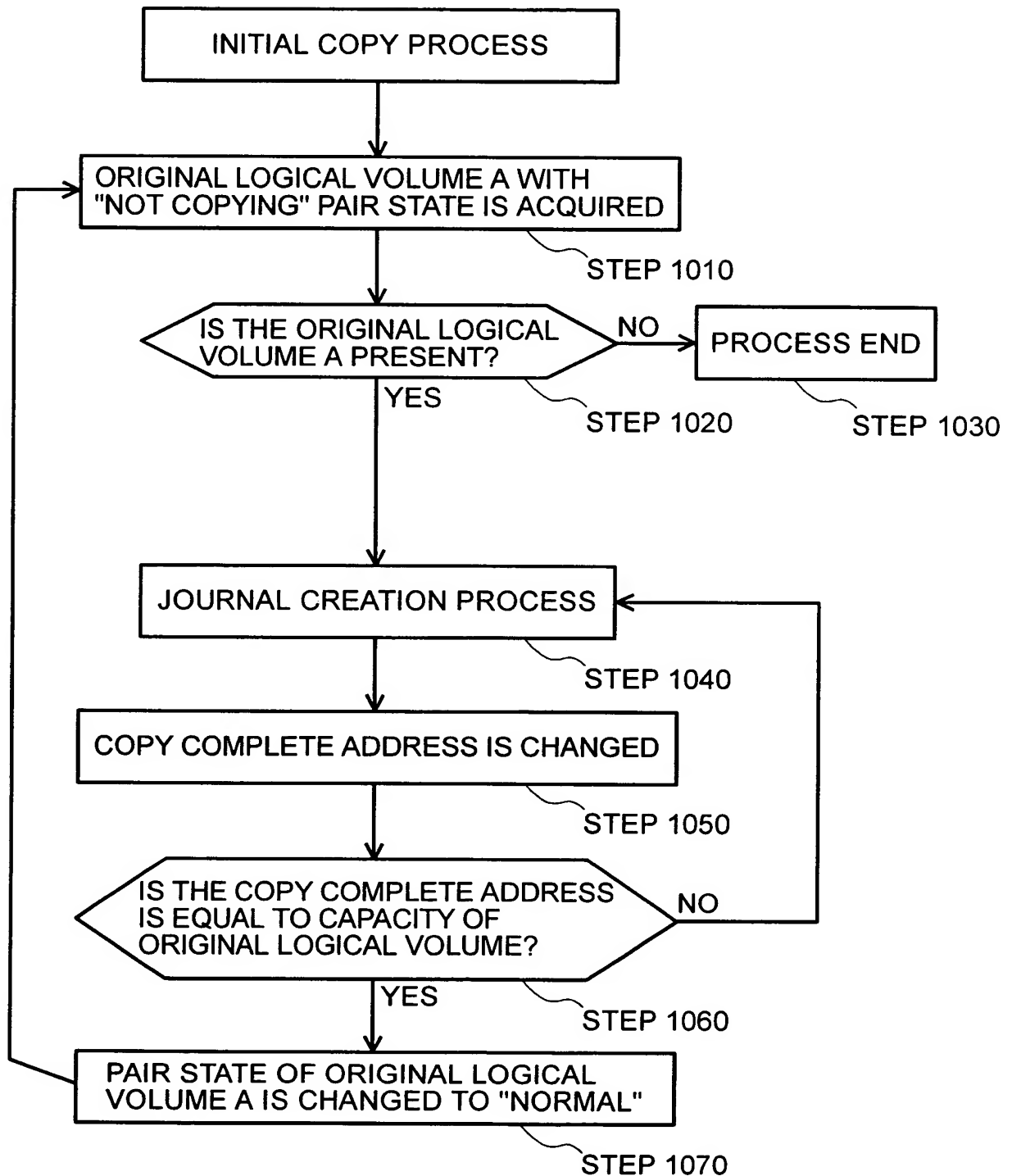
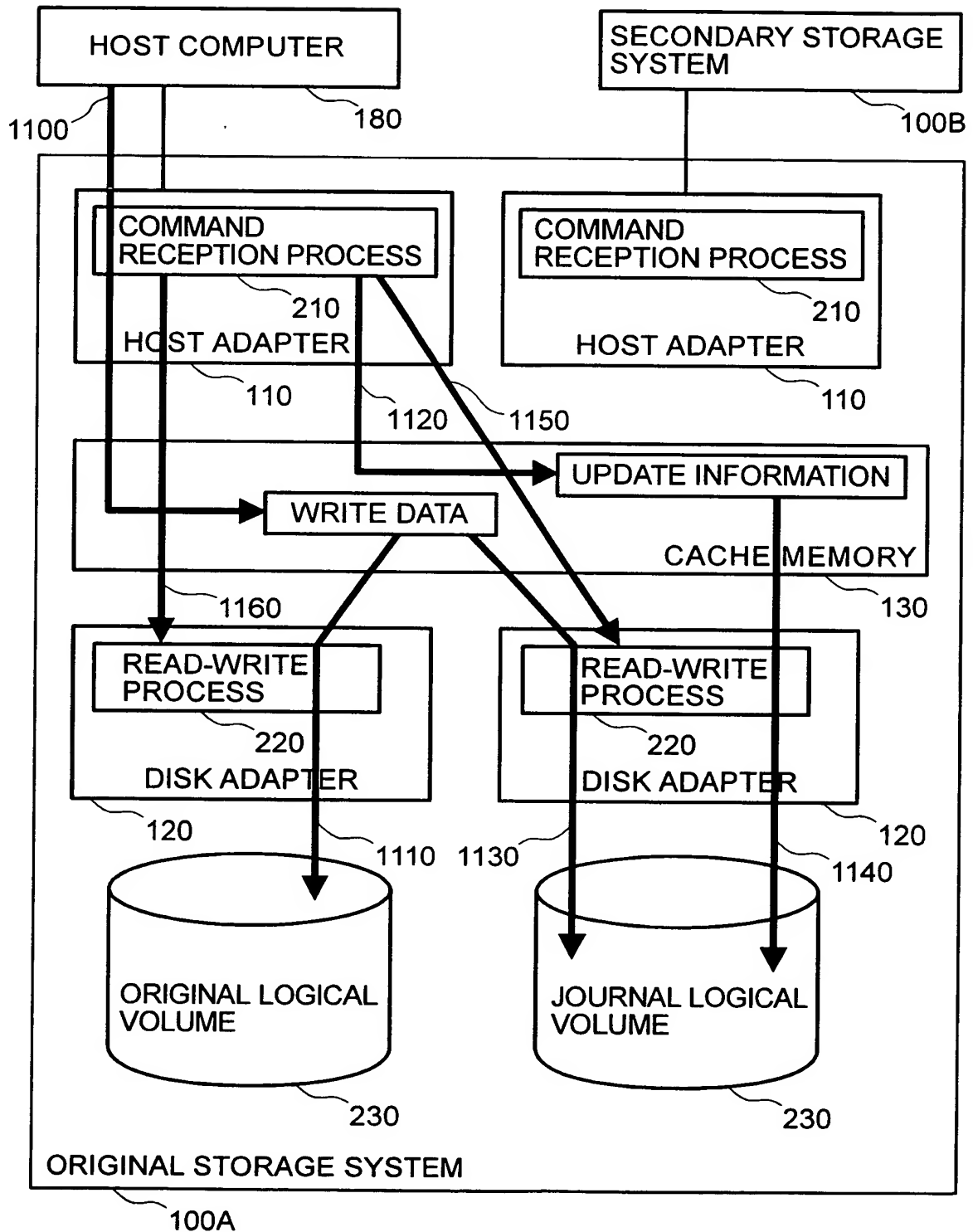
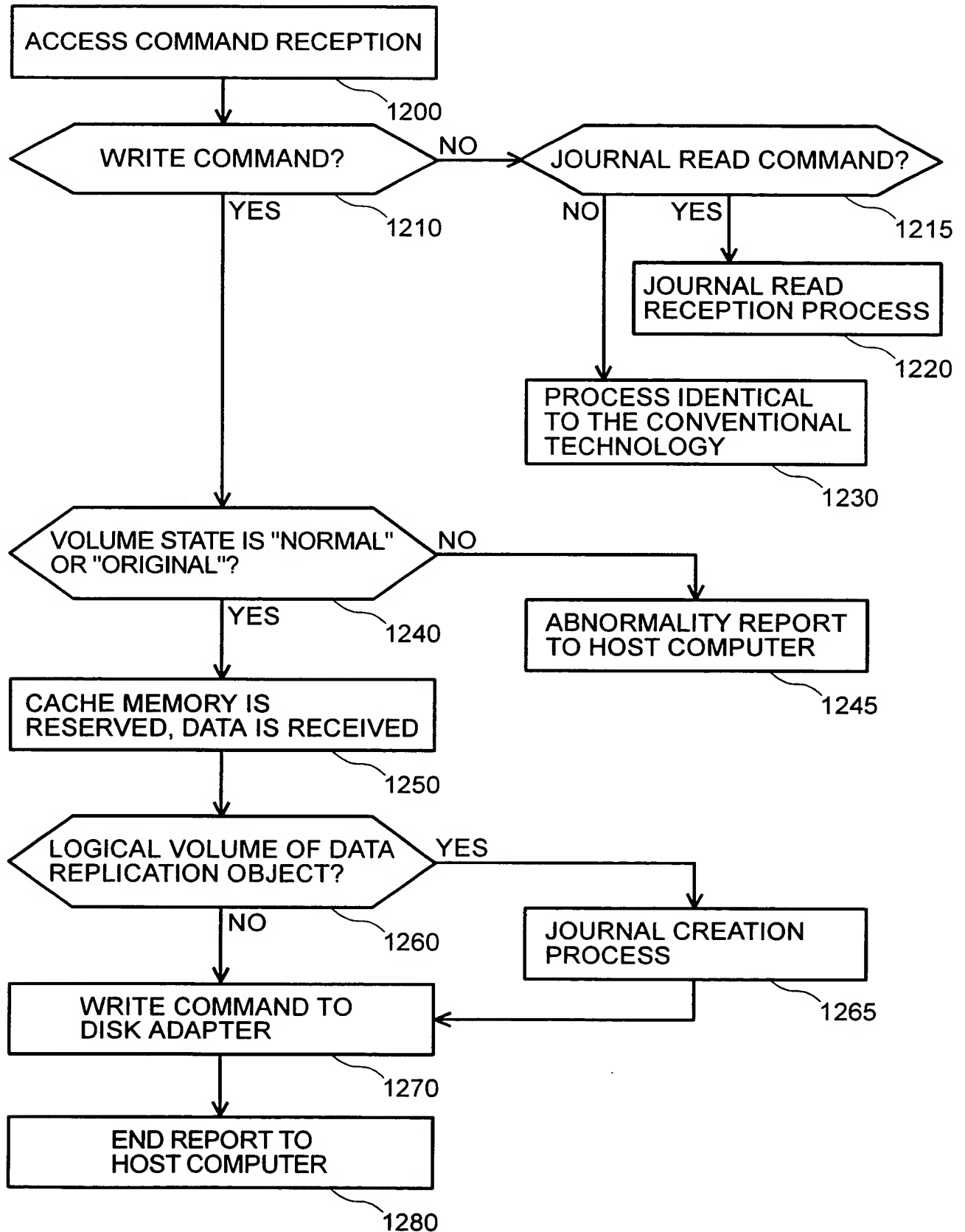




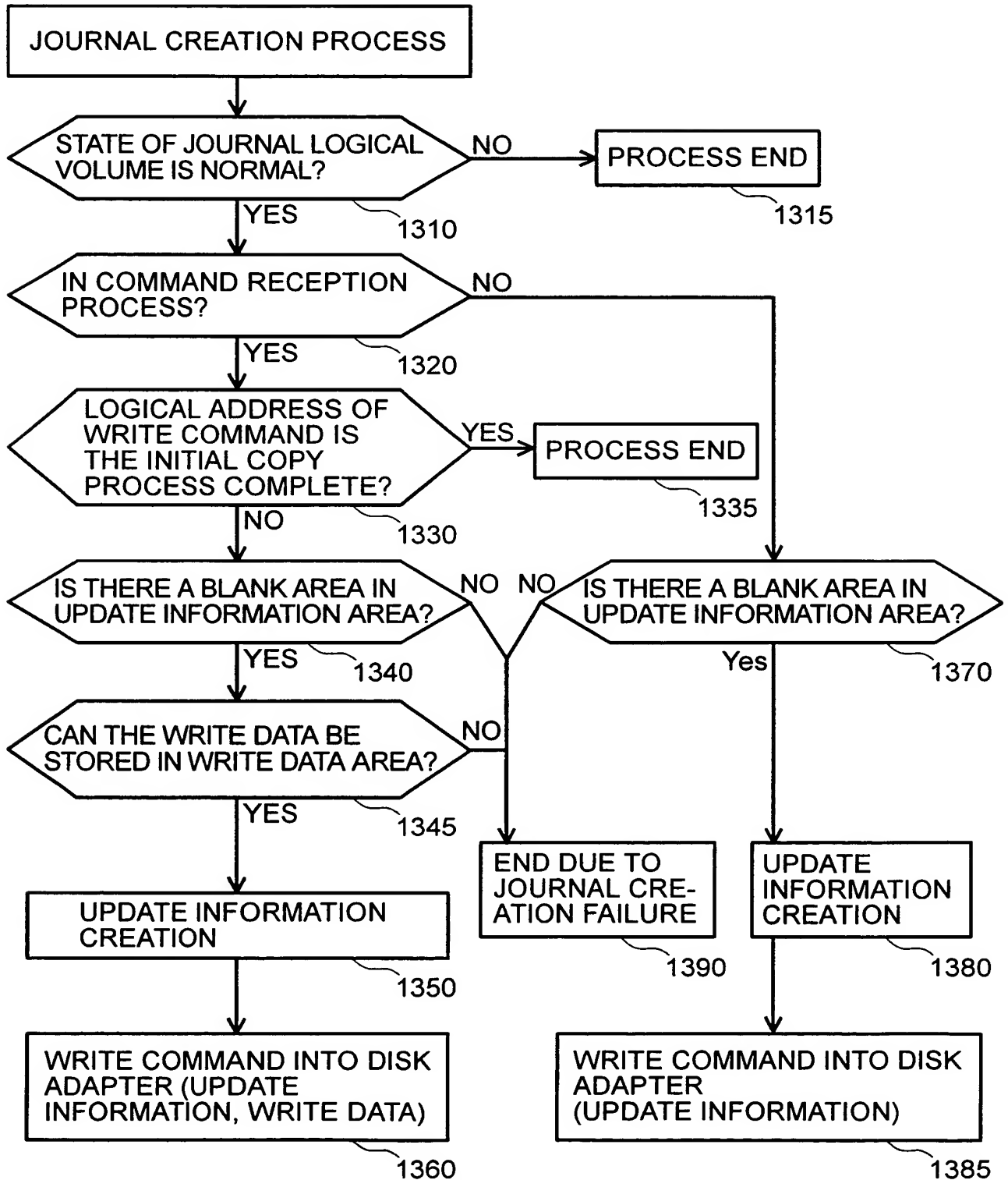
FIG.11



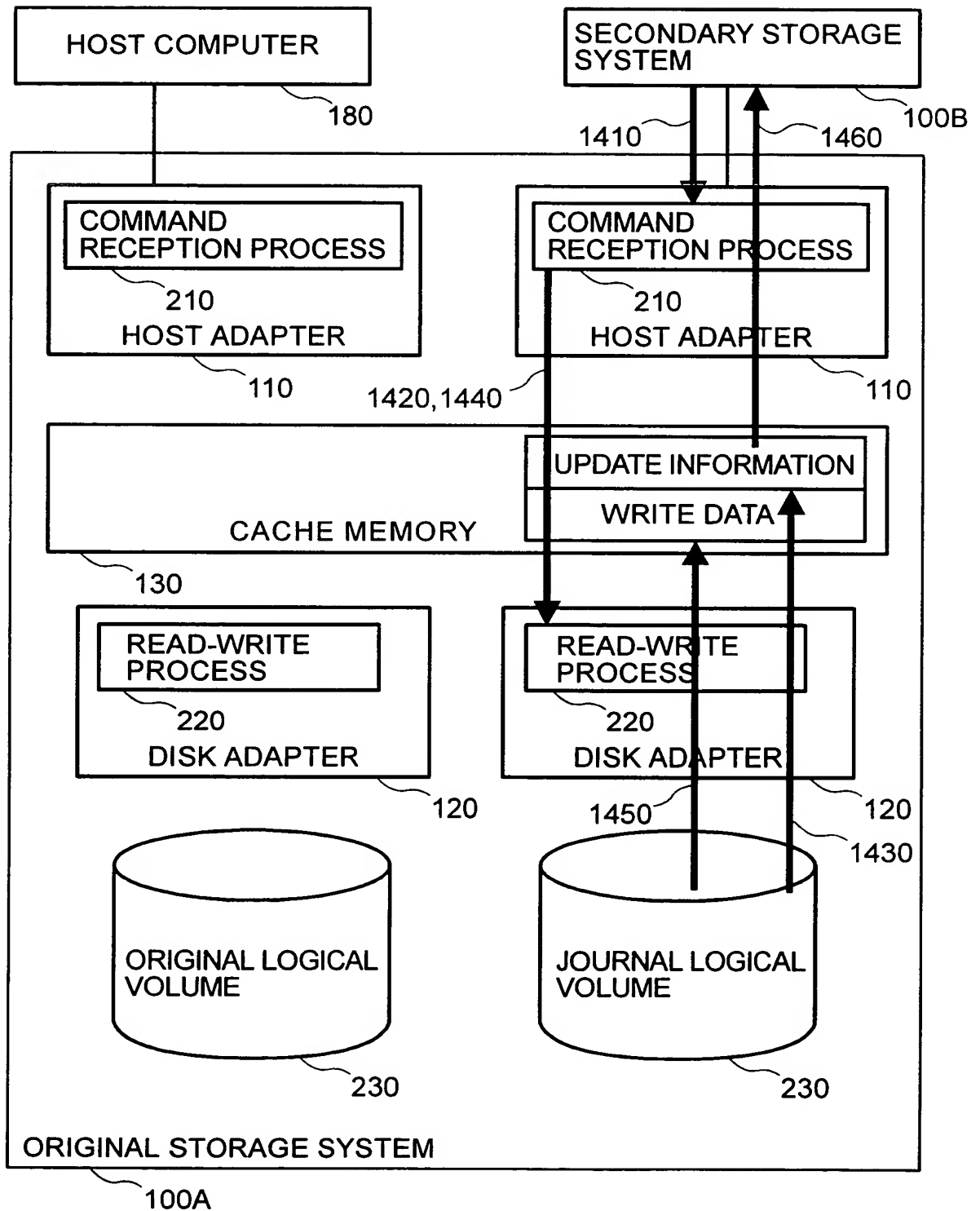
**FIG.12**



**FIG.13**



**FIG.14**



**FIG.15**

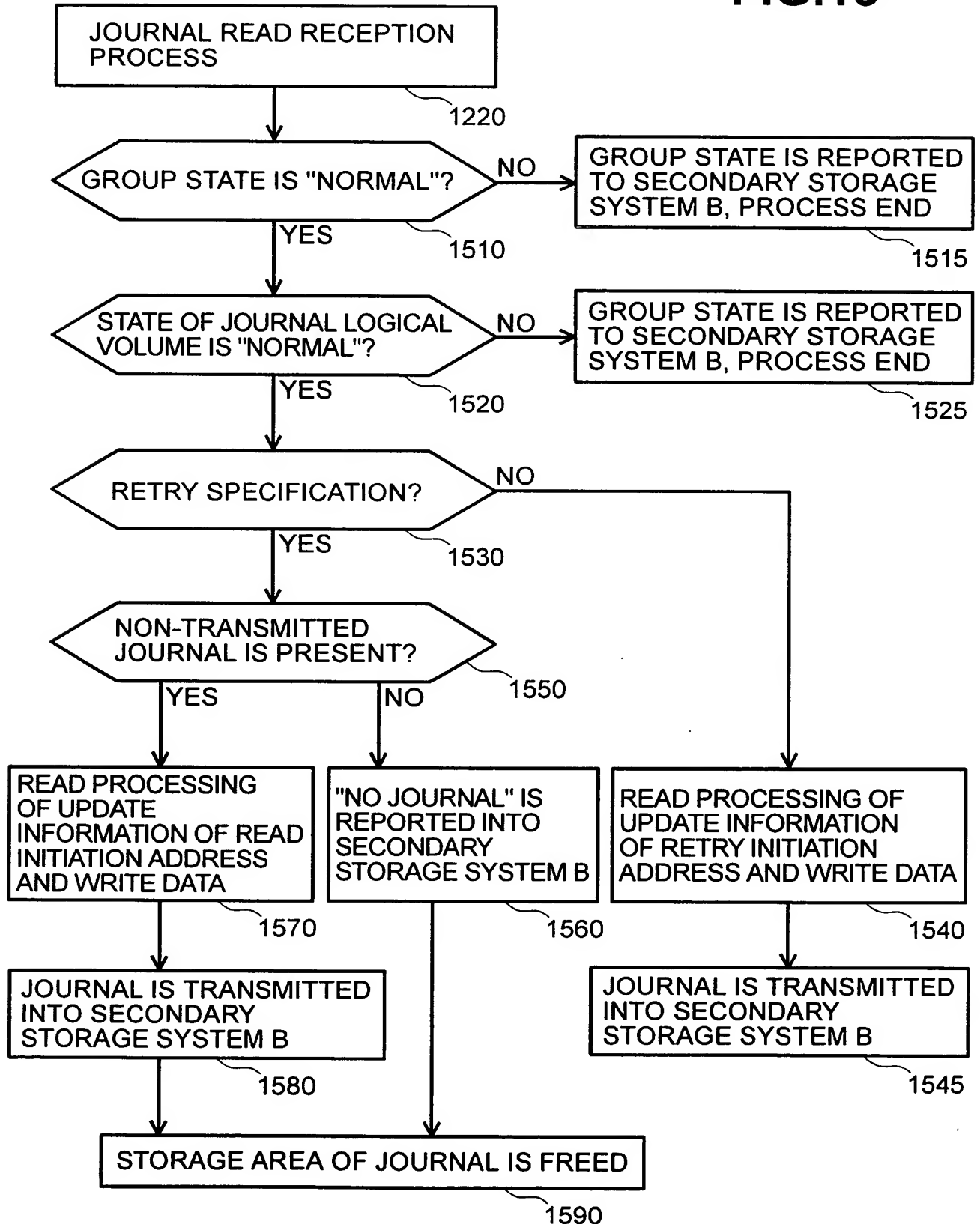


FIG.16

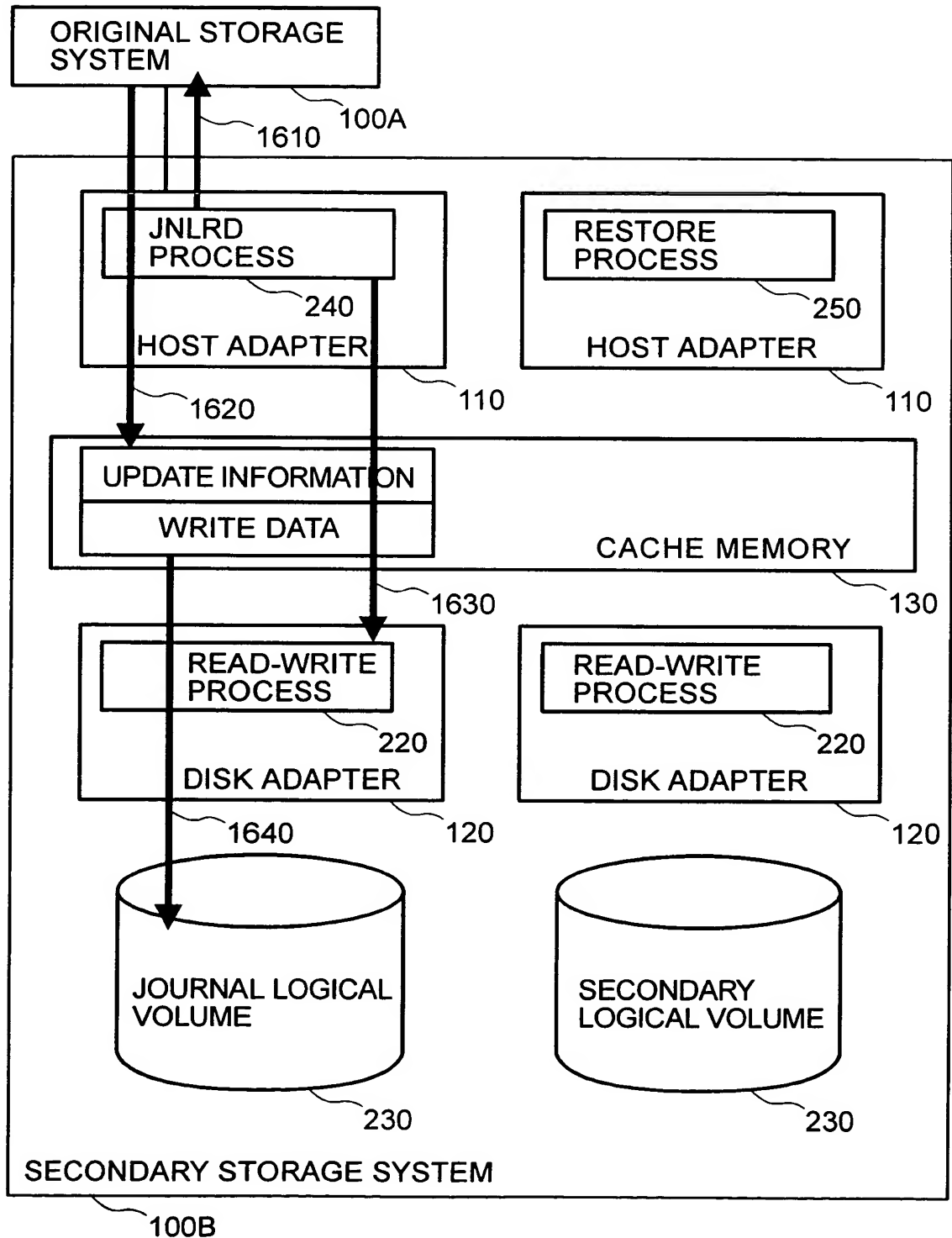
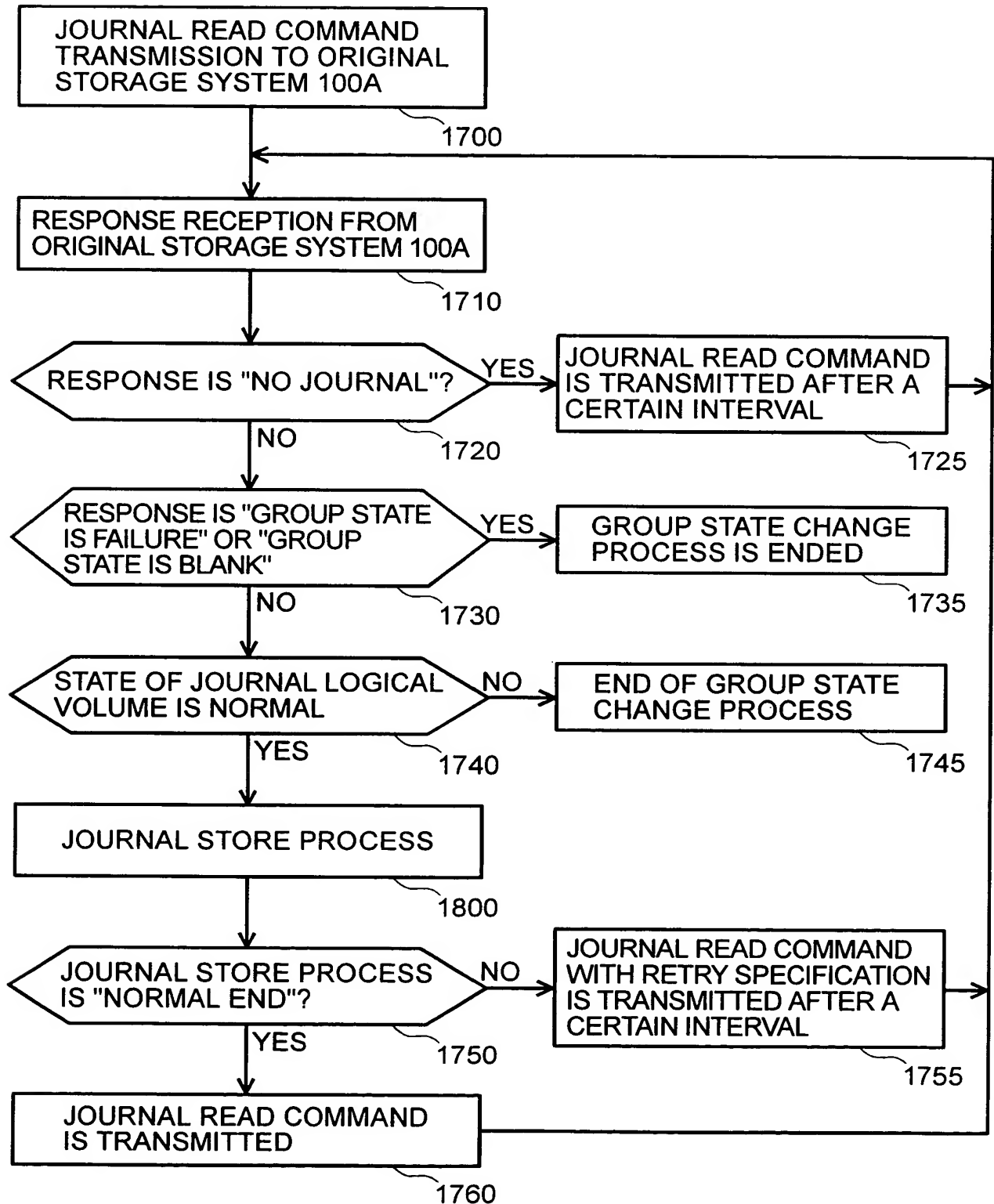
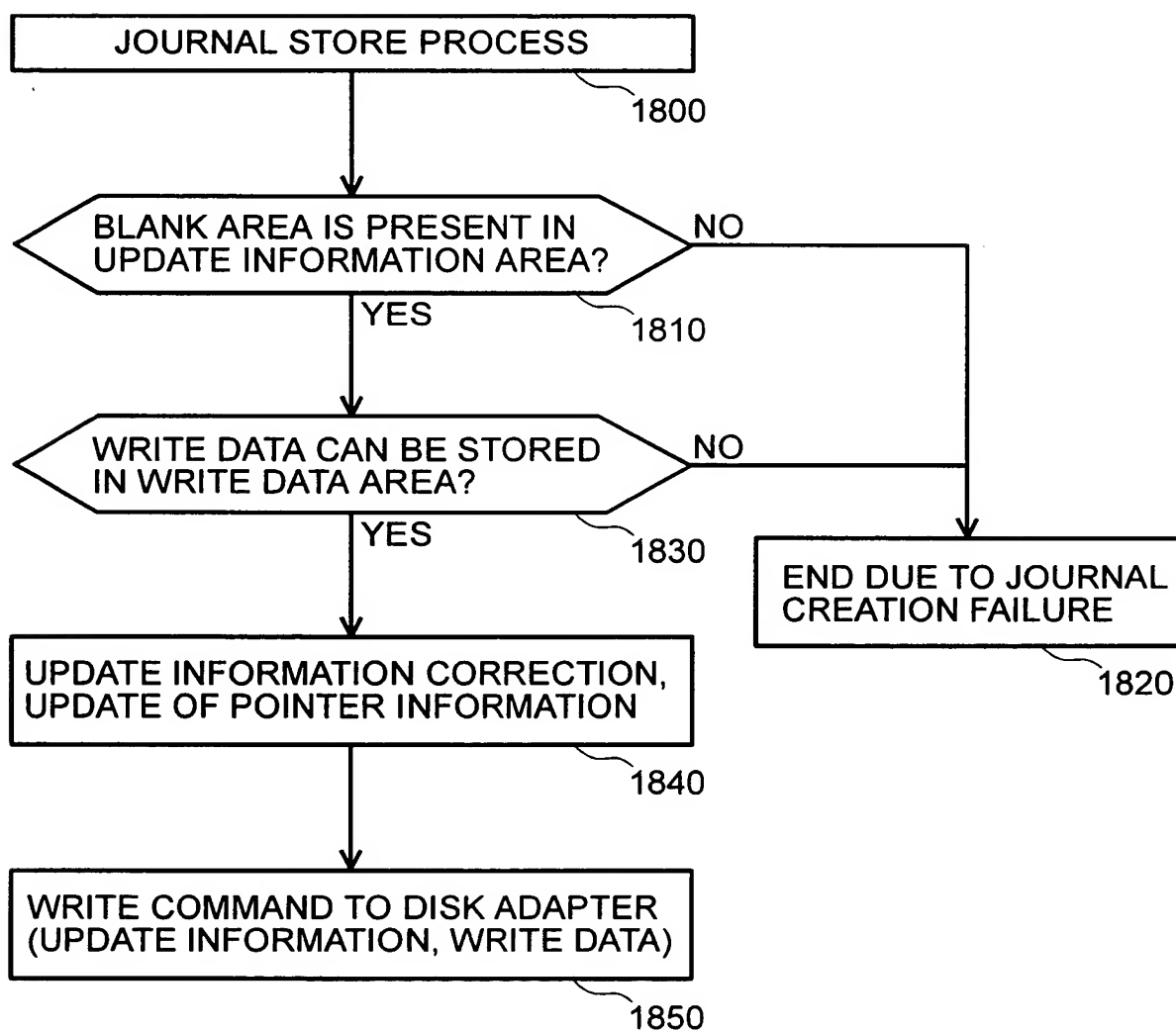


FIG.17

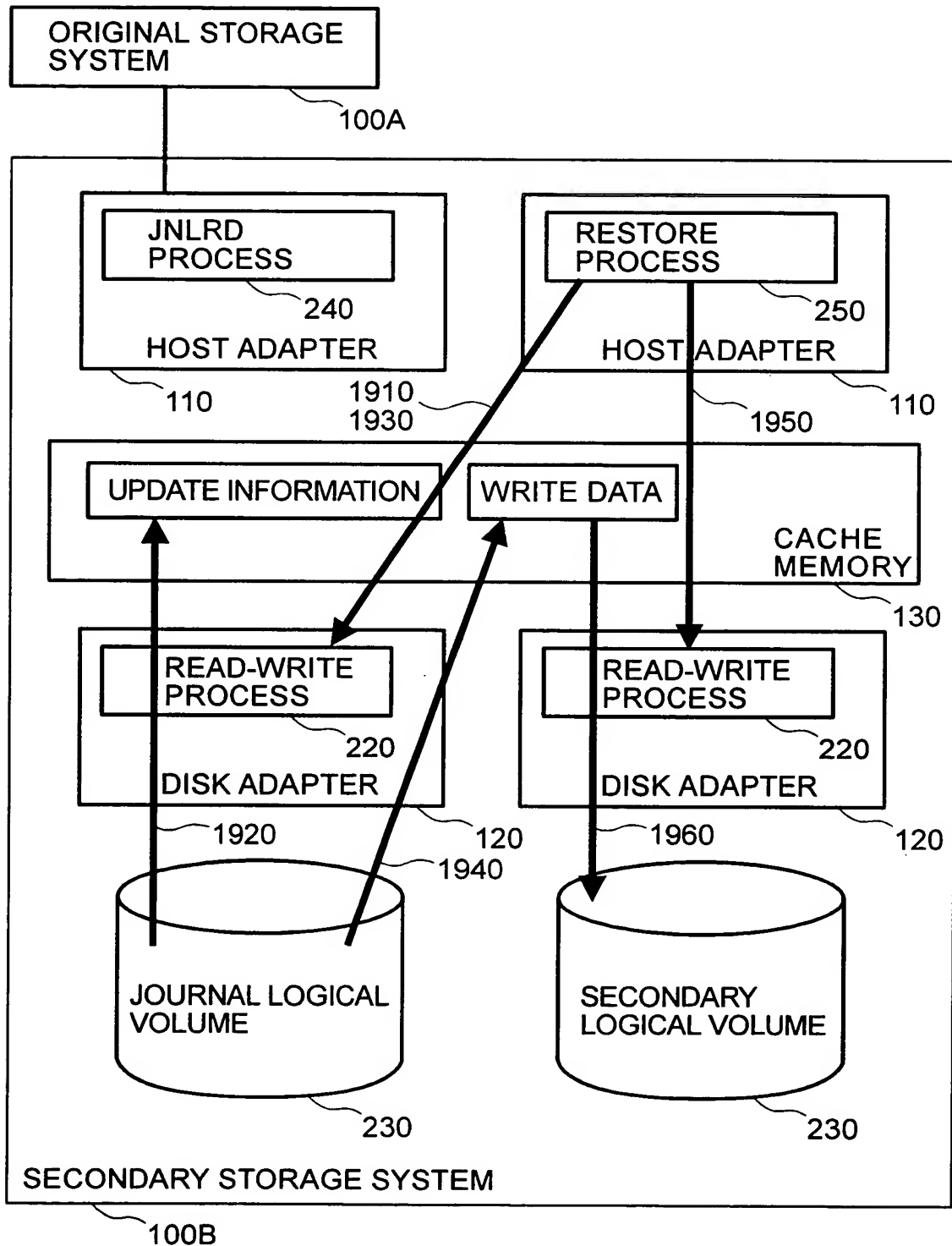


**FIG.18**





**FIG. 19**



**FIG.20**

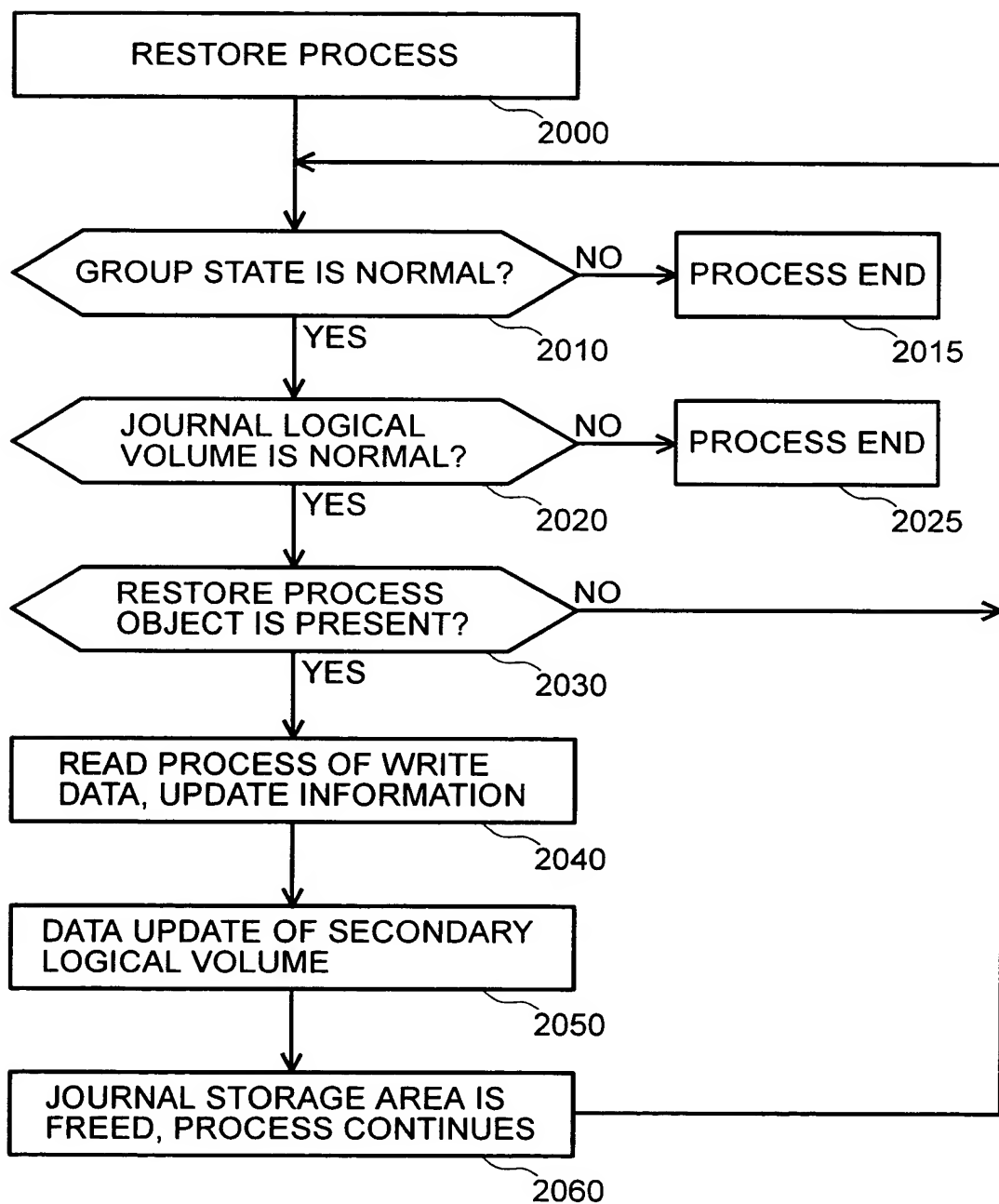


FIG.21

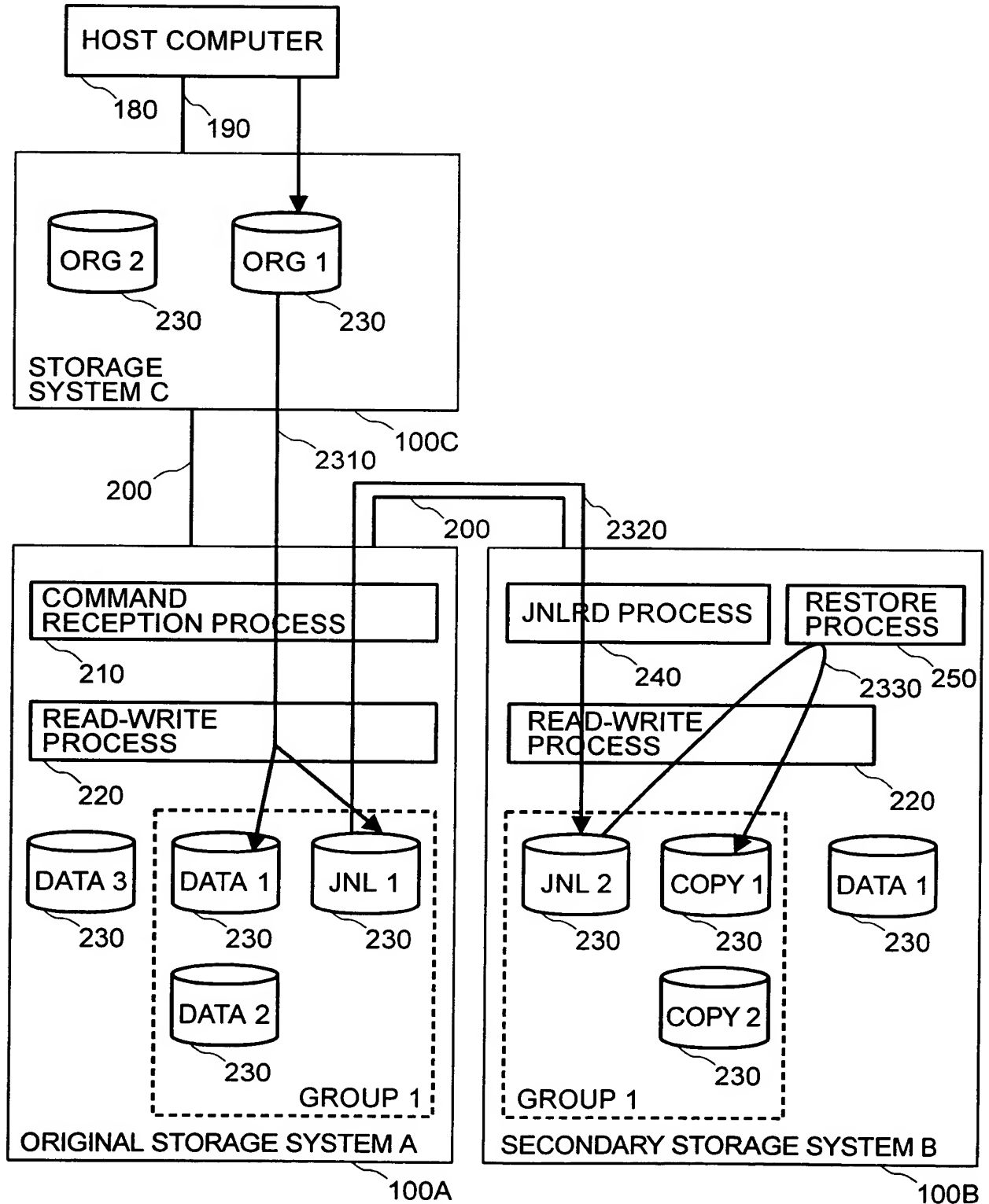
SETTING ITEM	EXAMPLE OF SET VALUE
INSTANT OF TIME AT WHICH WRITE COMMAND WAS RECEIVED	3/17/1999, 22:20:10
GROUP NUMBER	1
UPDATE NUMBER	4
LOGICAL ADDRESS OF WRITE COMMAND	LOGICAL VOLUME NUMBER: 1 POSITION FROM HEAD OF STORAGE AREA OF LOGICAL VOLUME: 700
DATA SIZE OF WRITE DATA	300
LOGICAL ADDRESS OF JOURNAL LOGICAL VOLUME STORING THE WRITE DATA	LOGICAL VOLUME NUMBER: 4 POSITION FROM HEAD OF STORAGE AREA OF LOGICAL VOLUME: 1500

310 UPDATE INFORMATION

FIG.22

SETTING ITEM	EXAMPLE OF SET VALUE
INSTANT OF TIME AT WHICH WRITE COMMAND WAS RECEIVED	3/17/1999, 22:20:10
GROUP NUMBER	1
UPDATE NUMBER	4
LOGICAL ADDRESS OF WRITE COMMAND	LOGICAL VOLUME NUMBER: 1 POSITION FROM HEAD OF STORAGE AREA OF LOGICAL VOLUME: 800
DATA SIZE OF WRITE DATA	100
LOGICAL ADDRESS OF JOURNAL LOGICAL VOLUME STORING THE WRITE DATA	LOGICAL VOLUME NUMBER: 4 POSITION FROM HEAD OF STORAGE AREA OF LOGICAL VOLUME: 2200

**FIG.23**



**FIG.24**

